ABSTRACT OF THE INVENTION

A technique is disclosed for performing testing of an optical device under test (DUT). According to a specific embodiment, the DUT includes a plurality of DUT optical input ports and a plurality of DUT optical output ports. The testing may be performed by an optical switching testing system (OSTS) which includes a plurality of OSTS output ports optically connected to a plurality of DUT input ports, and a plurality of OSTS input ports optically connected to a plurality of DUT output ports. Components of the OSTS are configured in order to perform a specific test on the DUT. A first test scenario is configured at the DUT. At least one optical test signal is transmitted to at least one DUT input port. Test results may then be obtained by monitoring at least one DUT output port for the presence or absence of light. The test results are then analyzed for specific characteristics. According to a specific embodiment, the OSTS of the present invention may be adapted to automatically perform a plurality of testing operations on a selected plurality of different optical paths associated with the DUT. Such testing operations may include, for example, transmitting a plurality of optical test signals to a plurality of DUT input ports during a given test scenario, and/or monitoring a plurality of DUT output ports for test results during a given test scenario. According to a specific embodiment, the optical switch testing system of the present invention may be used to measure and verify selected characteristics associated with a device under test (DUT) or a system under test (SUT). Such characteristics may include, for example, optical cross talk, insertion loss, polarization dependent loss, path switching time, data integrity, optical path verification, optical path stability, etc.